Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

Claim 1 (currently amended): A system for assisting operators in electronics manufacturing plants, the system comprising:

    a processor;

    a data storage device coupled to the processor;

    a handheld device including a display coupled to the processor;

    monitoring software stored in the data storage device and adapted for being run on the processor; and

    at least one of a circuit panel magazine feeder monitoring device, a screen printer monitoring device, a component placement machine monitoring device, an oven monitoring device, and a magazine storage monitor device.

Claim 2 (original): The system as recited in claim 1 wherein the system includes the screen printer monitoring device and the component placement machine monitoring device.

Claim 3 (original): The system as recited in claim 1 wherein the component placement machine monitoring device includes a splice detection subsystem and component closed-loop validation subsystem.

Claim 4 (original): The system as recited in claim 1 further comprising a network connecting the processor and said at least one monitoring device.

Claim 5 (canceled)

Claim 6 (canceled)

Claim 7 (currently amended): The system as recited in claim [[6]] 1 wherein the processor is part of the handheld device.

Claims 8-11 (canceled)

Claim 12 (original): A printed circuit board assembly line comprising:

a screen printer having a screen printer monitoring device for sensing a solder level at the screen printer;

at least one component placement machine having a feed tape and a placement monitor for monitoring at least one of the existence of a feed tape splice and the number of components on the feed tape; and

a processor receiving data from the screen printer monitoring device and the placement monitor.

Claim 13 (original): The printed circuit board assembly line as recited in claim further comprising a conveyor located at least between the screen printer and the at least one component placement machine for transporting circuit boards.

Claim 14 (original): The printed circuit board assembly line as recited in claim 12 further comprising a network between the placement monitor and the processor.

Claim 15 (original): The printed circuit board assembly line as recited in claim 12 further comprising a display for displaying information as a function of the data.

Claim 16 (original): The printed circuit board assembly line as recited in claim 15 wherein the display is on a handheld device.

Claim 17 (original): The printed circuit board assembly line as recited in claim 16 wherein the handheld device includes a barcode scanner.

Claim 18 (currently amended): The printed circuit board assembly line as recited in claim 12 further comprising a magazine feeder having a magazine feeder monitor, the processor receiving data from the magazine feeder monitor.

Claim 19 (currently amended): A method for manufacturing a printed circuit board comprising the steps of:

screen printing a printed circuit board with a screen printer;

placing at least one component on the printed circuit board using a placement machine;

monitoring at least one of the screen printer and the placement machine so as to generate task data relating to necessary operator maintenance tasks; and

displaying the data to the operator.

Claim 20 (currently amended): The method as recited in claim 19 further comprising organizing the task data as a function of time.

Claim 21 (original): The method as recited in claim 19 wherein more than one placement machine is monitored.

Claim 22 (currently amended): The method as recited in claim 19 wherein the task data is displayed to a handheld device.

Claim 23 (original): The method as recited in claim 19 further comprising sweeping a component tape with a barcode reader.

Claim 24 (canceled)

Claim 25 (currently amended): A method for operating an electronics assembly line comprising the steps of:

monitoring at least two of a screen printer, a first placement machine and a second placement machine so as to generate electronic task data;

Page 4 of 12

organizing the task data so as to form a list of tasks <u>relating to maintenance of the
assembly line</u>; and

displaying the list of tasks.

Claim 26 (original): The method as recited in claim 25 further comprising monitoring the
assembly line for malfunctions and displaying malfunction data together with the list of tasks.

Claim 27 (original): The method as recited in claim 26 wherein the malfunction data includes
data indicating at least one of a fiducial misreading, an assembly line conveyor stop, and a failed
splice.

Claim 28 (currently amended): A handheld device comprising:

a processor operatively connected to receive data from at least one of a screen printer and
a component placement machine; and

a display connected to the processor displaying task data related to the screen printer and
the component placement machine.

Claim 29 (original): The handheld device as recited in claim 28 further comprising a barcode
scanner.

Claim 30 (original): A method for scheduling tasks on an assembly line comprising:

receiving input data from at least two of a screen printer, a first component placement
machine and a second component placement machine;

determining a first task time as a function of the input data;

determining a second task time as a function of the input data; and

displaying both the first task time and the second task time.

Claim 31 (original): Executable process steps operative to control a processor, stored on a
processor readable medium, for monitoring an assembly line to schedule maintenance, the steps
comprising:

receiving input data from at least two of a screen printer, a first component placement

machine and a second component placement machine;

determining a first task time as a function of the input data;

determining a second task time as a function of the input data; and

displaying both the first task time and the second task time.